

IN THE CLAIMS

Cancel claims 1-10 without prejudice or disclaimer, and add new claims 11-18 as follows:

1-10. (Canceled).

11. (New) A charged particle beam irradiation equipment for irradiating charged particle beam to an object, comprising  
a first scanning electromagnet for scanning a charged particle beam in a first direction,

a second scanning electromagnet for scanning a charged particle beam in a second direction which intersecting with the first direction,

a first power supply for applying a voltage to the first scanning electromagnet, and

a second power supply for applying a voltage to the second scanning electromagnet, wherein

said first power supply comprises a first power supply unit having no filter and a second power supply unit having a filter,

said second power supply comprises another first power supply unit having no filter and another second power supply unit having another filter,

a first scanning electromagnet control device for controlling said first power supply unit and said second power supply unit in said first power supply, and

a second scanning electromagnet control device for controlling said another first power supply unit and said another second power supply unit in said second power supply.

12. (New) A charged particle beam irradiation equipment according to Claim 11, wherein

said first scanning electromagnet control device controls said first power supply unit to output a voltage from said first power supply unit during a period when irradiation position of said charged particle beam irradiation is changed from a first irradiation position of said charged particle beam irradiation is changed from a first irradiation area to a second irradiation area in the irradiation object in said first direction, and controls said second power supply unit to output a voltage from said second power supply unit during a

period when said second irradiation area is irradiated with said charged particle beam, and

said second scanning electromagnet control device controls said another first power supply unit to output a voltage from said another first power supply unit during a period when irradiation position of said charged particle beam irradiation is changed from a third irradiation area to a fourth irradiation area in the irradiation object in said second direction, and controls said another second power supply unit to output a voltage from said another second power supply unit during a period when said fourth irradiation area is irradiated with said charged particle beam.

13. (New) A charged particle beam irradiation equipment according to claim 11, wherein

said first power supply unit in said first power supply comprises a first inverter to output a DC as said voltage,

said second power supply unit in said first power supply comprises a second inverter to output a DC as said voltage to said filter,

said another first power supply unit in said second power supply comprises another said first inverter to output a DC as said voltage, and

said another second power supply unit in said second power supply comprises another said second inverter to output a DC as said voltage to said another filter.

14. (New) A charged particle beam irradiation equipment according to claim 13, wherein

said first scanning electromagnet control device controls said first inverter to output a DC from said first inverter during a period when irradiation position of said charged particle beam irradiation is changed from a first irradiation area to a second irradiation area in the irradiation object in said first direction, and controls said second inverter to output a DC from said second inverter during a period when said second irradiation area is irradiated with said charged particle beam, and

said second scanning electromagnet control device controls said another first inverter to output a DC from said another first inverter during a period when irradiation

position of said charged particle beam irradiation is changed from a third irradiation area to a fourth irradiation area in the irradiation object in said second direction, and controls said another second inverter to output a DC from said another second inverter during a period when said fourth irradiation area is irradiated with said charged particle beam.

15. (New) A charged particle beam irradiation equipment according to claim 13, wherein

said first power supply comprises:

a first control device for controlling an output of DC from said first inverter in said first power supply, and

a second control device for controlling an output of DC from said second inverter in said first power supply;

said second power supply comprises:

a third control device for controlling an output of DC from said another first inverter in said second power supply, and

a fourth control device for controlling an output of DC from said another second inverter in said second power supply; further wherein

said first scanning electromagnet control device outputs a first control instruction for outputting a DC voltage from said first inverter in said first power supply to said first control device, and a second control instruction for outputting a DC voltage from said second inverter in said second power supply to said second control device; and

said second scanning electromagnet control device outputs a third control instruction for outputting a DC voltage from said another first inverter in said second power supply to said third control device, and a fourth control instruction for outputting a DC voltage from said another second inverter in said second power supply to said fourth control device.

16. (New) A charged particle beam irradiation equipment according to claim 15, wherein

said second control device controls said second inverter in said first power supply with PWM control, and

said fourth control device controls said another second inverter in said second power supply with PWM control.

17. (New) A charged particle beam irradiation equipment according to claim 15, wherein

said first scanning electromagnet control device outputs said first control instruction during a period when irradiation position of said charged particle beam irradiation is changed from a first irradiation area to a second irradiation area in the irradiation object in said first direction, and outputs said second control instruction during a period when said second irradiation area is irradiated with said charged particle beam, and

said second scanning electromagnet outputs said third control instruction during a period when irradiation position of said charged particle beam irradiation is changed from a third irradiation area to a fourth irradiation area in the irradiation object in said second direction, and outputs said fourth control instruction during a period when said fourth irradiation area is irradiated with said charged particle beam.

18. (New) A charged particle beam irradiation equipment according to claim 17, wherein

said second control device controls said second inverter in said first power supply with PWM control, and

said fourth control device controls said another second inverter in said second power supply with PWM control.